

# B.S. IN BIOLOGY



## GENERAL EDUCATION- UK CORE REQUIREMENTS

- 1 Intellectual Inquiry in Arts and Creativity Course - 3 Credit Hours
- 1 Intellectual Inquiry in the Humanities Course - 3 Credit Hours
- 1 Intellectual Inquiry in the Social Sciences Course - 3 Credit Hours
- 1 Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences Course (*satisfied by major*)
- 1 Composition and Communication I Course - 3 Credit Hours
- 1 Composition and Communication II Course - 3 Credit Hours
- 1 Quantitative Foundations Course - satisfied by major
- 1 Statistical Inferential Reasoning Course - satisfied by major
- 1 Community, Culture, and Citizenship in the USA Course - 3 Credit Hours
- 1 Global Dynamics Course - 3 Credit Hours

**Total: 21 Credit Hours**

## GRADUATION COMPOSITION AND COMMUNICATION REQUIREMENT (GCCR)

\*Oral Component - BIO 425 (*satisfied by major*)

\*Written Component (choose one):

- BIO 398: Research and Writing in Biology - 1-3 Credit Hours
- BIO 404: Advanced Genetics - 3 Credit Hours
- BIO 405: Human Genetics - 3 Credit Hours
- BIO 418: Ecological Genetics - 3 Credit Hours
- BIO 430G: Plant Physiology - 4 Credit Hours
- BIO 445: The Biology of Sex - 3 Credit Hours
- WRD 305: Writing Public Science - 3 Credit Hours
- WRD 310: Writing in the Natural Sciences - 3 Credit Hours

These courses can also count towards the 15 hours of Biology Major Electives and 12 hours of Tracks.

**Total: 1-4 Credit Hours**

## COLLEGE REQUIREMENTS

3 credit hours Natural Sciences Courses (*satisfied by major*)

3 credit hours Social Sciences Courses

3 credit hours Humanities Courses

3 credit hours Race & Ethnicity course

6 credit hours A&S Electives

Foreign Language: Complete 202 course of one language OR 2 semesters of one language and 3 semesters of a different language - 0-15 Credit Hours

**Total: 15 Credit Hours + Foreign Language Hours**

## PRE-MAJOR REQUIREMENTS

BIO 148: Introductory Biology I - 3 Credit Hours

BIO 152: Principles of Biology II - 3 Credit Hours

BIO 155: Introductory Biology Lab I OR BIO 198: Scholars Biology Research - 1-2 Credit Hours

CHE 105: General College Chemistry I AND CHE 111: General Chemistry Lab I - 5 Credit Hours (4+1 hours)



CHE 107: General College Chemistry II AND CHE 113: General Chemistry Lab II - 5 Credit Hours (3+2 hours)

MA 137: Calculus I with Life Science Application - 4 Credit Hours

MA 138: Calculus II with Life Science Application - 4 Credit Hours

\*The CHE 105 requirement can be satisfied with CHE 109 and CHE 110 (8 Credit Hours).

**Total: 25-30 Credit Hours**

## MAJOR REQUIREMENTS

Minimum major requirement for graduation is 56 credit hours in courses as detailed below. The overall GPA and Major GPA must be at least 2.0.

### CORE COURSES

#### 1st Tier Core

BIO 303: Intro to Evolution - 4 Credit Hours

BIO 304: Principles of Genetics - 4 Credit Hours

\*The above two courses have an embedded laboratory component\*

#### 2nd Tier Core (To be taken after completion of 1st Tier Core)

BIO 315: Intro to Cell Biology - 4 Credit Hours

BIO 325: Ecology - 4 Credit Hours

BIO 350: Animal Physiology OR BIO 430G: Plant Physiology - 4 Credit Hours

\* The above three courses have an embedded laboratory component\*

STA 296: Statistical Methods and Motivations - 3 Credit Hours

BIO 425: Biology Seminar - 1 Credit Hour

**Core Total: 24 Credit Hours**

### COURSES OUTSIDE THE MAJOR

CHE 230: Organic Chemistry I - 3 Credit Hours

CHE 231: Organic Chemistry I Lab - 1 Credit Hour

CHE 232: Organic Chemistry II - 3 Credit Hours

PHY 211: General Physics I - 5 Credit Hours

PHY 213: General Physics II - 5 Credit Hours

**Outside Major Total: 17 Credit Hours**

### BIOLOGY ELECTIVES 15 HOURS

15 hours to be chosen from 300+ level BIO courses or the full list of acceptable electives. A maximum of only six credits of BIO 395 may be used as electives in this section. A total of six hours of Independent Research (395) from biological sciences departments may be counted within the 15 hour. Note: ANA 209, BIO 208, BIO 209, and PGY 206 CANNOT be used for this requirement.



\*\*\*For the B.S. degree, a minimum of 9 of the 15 upper-level electives must be BIO courses (i.e. must have a BIO prefix)\*\*\*

### **TRACK**

From among the 15 credits of Electives, 12 credits must be from a specific Track (or Specialization) that must be declared in the Junior year. Only 3 credits of BIO 395 may count towards the Track. Students may choose a track from the following:

- Cellular, Molecular, and Developmental Biology Track
- Ecology and Evolutionary Biology Track
- Genetics, Genomics, and Bioinformatics Track
- Physiology and Behavior Track
- Plant Biology Track, B.S.
- Pre-Professional Track
- General Biology Track

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**Total Credit Hours for Major (excluding pre-major hours) = 56 Credit Hours**

**Total Credit Hours for Graduation = minimum 120 Credit Hours**